

113. (New) The article of claim 104 wherein to compute and to modify an antenna processing strategy comprises the one or more electronic systems to generate and to adjust a set of weights to apply during processing for the remote user.

B2 114. (New) The article of claim 113 wherein the interferers comprise remote users, each having a corresponding weight for communicating with a wireless station, and wherein to adjust the set of weights further comprises the one or more electronic systems to:

scale the corresponding weights of each interferer by a selectable parameter; and

add the scaled weights to the set of weights of the remote user for which the antenna processing strategy is to be computed.

REMARKS

Applicants respectfully request reconsideration of the present U.S. Patent application. Claims 1-55 have been cancelled. Claims 56-114 have been added. Therefore, claims 56-114 are pending.

Regarding Amendments to Claims 56, 80, and 104

The amendment to claims 56, 80, and 104 removes the word "direction" from the claims. The word "direction" was eliminated to make clear that the invention should not be limited to direction-based smart antenna systems, but that it is equally applicable to fully adaptive and other types of smart antenna systems.

Claim Rejections - 35 U.S.C. § 102

Claims 1, 2, 8-18, 20, 21, 27-32, 38-47, and 52-55 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 5,973,638 issued to Robbins et al. (*Robbins*).

Claims 1-55 have been cancelled. Therefore, Applicants submit that the rejection of claims 1, 2, 8-18, 20, 21, 27-32, 38-47, and 52-55 is moot.

Applicants further submit that new claims 56-114 are not anticipated by *Robbins* for at least the following reasons.

Claim 56 as amended recites the following:

computing a smart antenna processing strategy for a remote user, based at least in part on received signal data; and
modifying the antenna processing strategy by **incorporating signature data relating to one or more interferers** with the received signal data to reduce one or both of antenna transmit signal strength in, and sensitivity of the antenna to signals from, one or more interferers.

Thus, Applicants claim computing a processing strategy for a remote user, the strategy being modified by incorporating signature data relating to interferers. Claims 80 and 104 similarly recite incorporating signature data relating to interferers to modify the processing strategy for a remote user.

Robbins discloses a method for verifying the integrity of a smart antenna system. See, e.g., Abstract. The method described in *Robbins* includes discussion of testing the response of the antenna on co-channel interferers. See col. 10, lines 54 to 60; col. 11, line 49 to col. 12, line 60; col. 18, lines 50-55. However, *Robbins* does not disclose modifying an antenna processing strategy by incorporating interferer signature data. Therefore, *Robbins* does not anticipate the invention as claimed in claims 56, 80, and 104.

Claims 57-79 depend from claim 56. Claims 81-103 depend from claim 80. Claims 105-114 depend from claim 104. Because dependent claims necessarily include the limitations of the claims from which they depend, Applicants submit that claims 57-79, 81-103, and 105-114 are not anticipated by *Robbins* for at least the reasons set forth above.

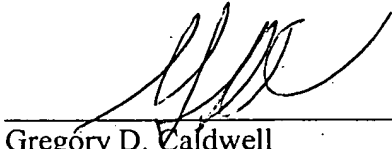
Conclusion

For at least the foregoing reasons, Applicants submit that the new claims overcome the rejections. Therefore, claims 56-114 are in condition for allowance and such action is earnestly solicited. The Examiner is respectfully requested to contact the undersigned by telephone if such contact would further the examination of the present application.

Please charge any shortages and credit any overcharges to our Deposit Account number 02-2666.

Respectfully submitted,
BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN, LLP

Date: 7/1/02



Gregory D. Caldwell
Reg. No. 39,926

12400 Wilshire Blvd., 7th Floor
Los Angeles, CA 90025-1026
Telephone: (503) 684-6200

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail with sufficient postage in an envelope addressed to the Commissioner of Patents, Washington, D.C. 20231 on:

July 3, 2002

(Date of Deposit)

Mary E. Warriner

Name of Person Mailing Correspondence

Mary E. Warriner
Signature

7-3-02
Date



AMENDMENTS WITH MARKINGS

IN THE SPECIFICATION

In the paragraph beginning on page 5, line 5:

One aspect of the invention is a method for determining, in a communication station using multiple antennas, improved uplink or downlink processing strategies, for example in the form of uplink or downlink weights for linear smart [mart] antenna processing, for which one or more nulls have a controlled depth. The method can be applied as a modification to a variety of known techniques for uplink and downlink strategy computation. The method needs as side information only the signatures of those remote users to which controlled nulls are to be directed. Other nulls in the array pattern, for which no signature estimates may be available, are substantially preserved. Another aspect of the invention includes estimating the required signatures. Another aspect of the invention modifies existing uplink and downlink [downing] strategy computation methods by injecting into the received signal sequence a synthetic signal whose signature equals that of the estimated remote user direction, and whose power is proportional to the desired null depth.